PS68.

Surgery for Renovascular Disease: Long-Term Follow-up of Patients Operated on during Fifteen Years

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Objectives: To investigate the early and long-term outcome after surgery for renovascular disease with emphasis on blood pressure control, renal function and survival.

Methods: During the 15-year period 1993-2007, a total of 40 patients underwent open surgery for renovascular disease at our institution. The patients were followed for up to five years with respect to postoperative morbidity, including nephrectomy, dialysis dependency, vessel patency, blood pressure (BP) and renal function. Survival was evaluated by cross-matching all patients with the population-registry on Oct 1 2010.

Results: Of the 40 patients, 31 had renal artery stenosis, eight due to fibromuscular dysplasia (FMD), and 23 with predominantly atherosclerotic etiology (ARAS). Nine were operated on for renal artery aneurysm (RAA). 16 of 23 patients with ARAS, 6/8 with FMD and 3/9 with RAA were women. More than 2/3 of ARAS patients needed 3 or more antihypertensive drugs, as did 2/3 of FMD patients prior to surgery. The majority of FMD and RAA patients had normal renal function, in 2/3 of ARAS patients it was impaired. In FMD and RAA patients the disease involved the right renal artery more often, whereas in ARAS patients the disease was evenly distributed.

In ARAS and FMD patients, BP at 1 month and 1 year had decreased post- compared to preoperatively, as had the need for antihypertensive medication. No change in renal function was observed. During follow-up, three patients underwent PTRA for re-stenosis. Thirty-day mortality was 2.5%, caused by bowel ischemia in one ARAS patient. Overall five-year survival was 87%. There was one late death among FMD patients, 14 years after surgery. All RAA patients were still alive. In ARAS patients five-year survival was 78%. Median follow-up was 8.5 years.

Conclusions: Surgery for renovascular disease can be performed with low morbidity and mortality, as well as a very low need of re-interventions, and should still be considered as a therapeutic option in patients with complex renovascular disease.

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PS70.

A Contemporary Experience of Open Surgical Treatment of Renal Artery Aneurysms

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Objectives: To examine our experience with open surgical treatment of renal artery aneurysms(RAA).

Methods: All patients undergoing surgical repair of RAAs between 1995 and 2010 were identified. Medical records were retrospectively reviewed for comorbidities, aneurysm characteristics, surgical approach and outcomes.

Results: Thirteen RAAs were identified in 12 patients. One patient had 2 ipsilateral RAAs. Mean age was 49 +/− 12 years and 11 were female. Two patients had concomitant splenic artery aneurysms. Preoperatively, the mean number of antiHTN medications per patient was 1.4. Eight patients presented with incidental RAAs and the rest had flank pain. One patient presented with rupture and underwent nephrectomy. All patients underwent preoperative cross-sectional imaging, while 7 had angiography as well. No patient had evidence of atheroemboli, renal infarcts, renal artery dissection or renal artery stenosis by preoperative imaging. Two patients had anatomically abnormal contralateral kidneys(congenital absence and atrophy) but no patients had abnormal renal function(mean Cr 0.8 +/− 0.2 mg/dL). Comorbidities included HTN(7), fibromuscular dysplasia(1), and DM(1). The RAAs(mean diameter 2.9 +/− 1.4 cm; saccular=5) were treated by either ex-vivo reconstruction and autotransplantation(5), resection/primary anastomosis(5), resection/saphenous vein interposition(1), resection/patch angioplasty (1), or nephrectomy(1). Mean LOS was 6.4 +/− 1.4 days. Three patients experienced 4 perioperative complications (ARF=2-both resolved, delirium=1 and ureteral anastomotic leak=1). Thirty-day survival was 100%. Mean followup was 40 months(7-140). All patients were alive at follow-up with preserved renal function and no uncontrolled HTN.

Conclusions: Many RAA's are not amenable to treatment with endovascular techniques. Thus, open surgical repair is still a mainstay of treatment and can be done with minimal perioperative morbidity and mortality.

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PS72.

Blunt Abdominal Aortic Injury: Injury Patterns, Management, and Mortality

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